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From ‘live projects’ to ‘lived-in’ environments: learning from six decades of re-design in Tema Manhean, Ghana.

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ABSTRACT Aligned with approaches that push the boundary of live projects beyond the live build only, this paper presents an action-learning initiative in Ghana in a site forged by modernist practitioners under colonialism. The notion of lived-in architecture is relied upon to apprehend how inhabitants re-shape and fabricate their dwelling environments. Using an inter-disciplinary methodology to map such contributions, students are exposed to the importance of voicing communities’ tacit knowledge. The analysis stresses the dialectic relationship between architectural artefacts and user-based transformations. Through intensive fieldwork, students gain insight on the capacity of self-builders and on the value of designed spaces that encourage dwellers’ appropriation. As part of the process participants reflect on their positionality as spatial practitioners and on the relevance of documenting re-design for the emergence of alternative urban imaginations.

KEYWORDS ‘lived-in’ architecture, critical pedagogy, tacit knowledge, Tema Manhean, Ghana

Introduction

On 2 March 1960, the relocation of 12000 people from the Ghanaian village of Tema, located 18 miles to the east of Accra, was considered duly concluded by Resettlement Officer Godfrey Amarteifio. Operation Hardcore placed the final seal to their forced resettlement by means of systematic evacuation. The relocation not only allowed more efficient demolition of original village homes, but also left little option for inhabitants than to move out. The settlement that villagers would inhabit after their clearance was to be called Tema Manhean. It carried in its name

Figure 1: The location of Old Tema and the making of Tema Manhean and Tema New Town

Tema new'. (*Figure 1*) The modern village was given form by the British office of Fry, Drew, Drake and Lasdun. According to a celebratory account of the time, the British practice had acquired an understanding of villagers' social and family life and of Tema's organization.[1] The village plan was drafted in 1953 during the Ghanaian diarchy, but amendments to its design would last well into the decade. Amarteifio, grossly understating the events, explained the reason for this long-lasting process: "the people vehemently resisted resettlement for seven years, having sworn to their great god (Awudu) that the move could only take place 'over their dead bodies'".[2] (*Figure 2*) When the resettlement was officially terminated, the former residents of Tema were expected to dwell in expandable homes clustered in open compounds.[3] (*Figure 3*) The final layout was the result of a strenuous conflict between designers and future residents. Such struggle occurred in a context where architects' positionality and their eventual ability to interpret a locale's specificities were yet to be thoroughly challenged.[4]

Viewed today, the experience of Tema Manhean discloses at least two crucial aspects for the development of critical design pedagogies. First and foremost, the relationship between the designers and users of a particular artefact at the moment of its conception is exposed in its full complexity. This relationship (or lack thereof) raises questions about trans-cultural spatial production, including the uneven power relations that made the intervention possible. Secondly and relatedly, the appropriations and adaptations made to the settlement are key indicators of how the designed environment

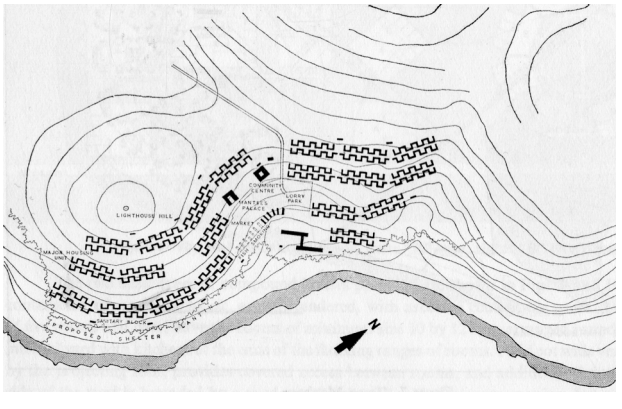

Figure 2: Tema Manhean, first proposal (ca. 1953); relocation underway (ca. 1959)

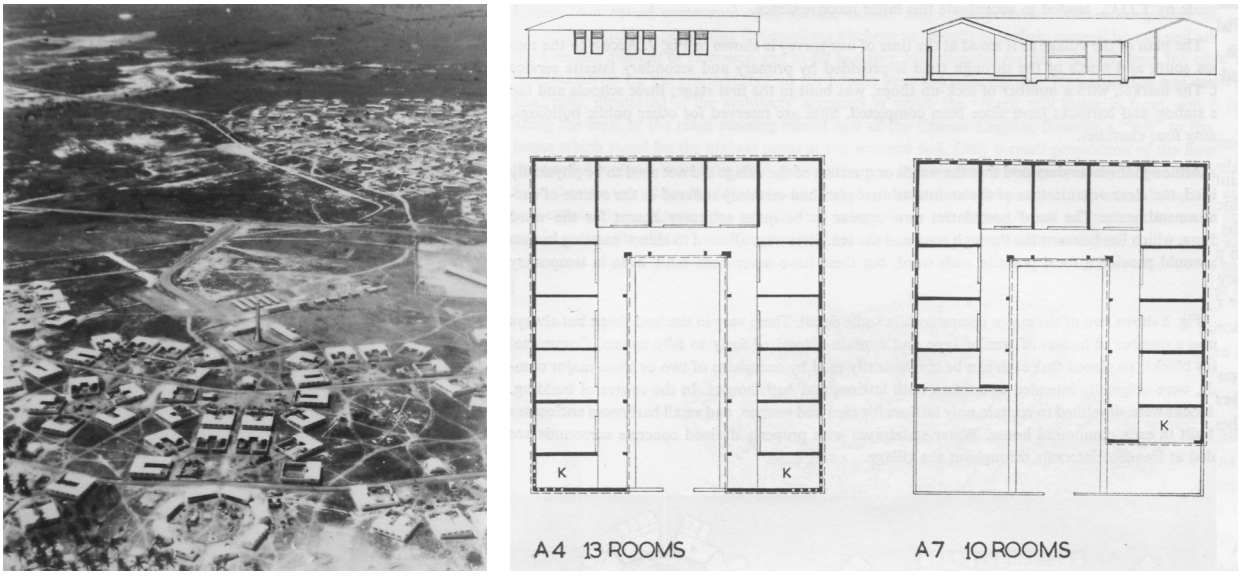

Figure 3: Open compounds in Tema Manhean based on clusters of incremental family houses.

acts as a palimpsest prone to constant re-appropriations over time. The intensity of Tema Manhean's transformation in the decades following its realisation illustrates how space is a repository for culturally situated and socially constructed knowledge. Taken together, these issues make manifest the significance of voicing the everyday construction of the city. They call for a reconciliation of post-colonial thinking and its potential impact on the urban development agenda - with the tangible realm of lived experiences in the Global South.

Precisely such issues were the focus of an action-learning initiative conducted between 2008 and 2014 in the village of Tema Manhean, now part of Greater Accra.[5] The experience involved intensive fieldwork by small groups of maximum four undergraduate and postgraduate students from KU Leuven in Belgium. They benefitted from the important contribution of: guidance from the Colleges of Architecture and Planning of the Kwame Nkrumah University of Science and Technology (KNUST); support from the chief of Tema Nii Adjetey Kraku II; and tutors with a consolidated engagement with the context. Moreover, immersive stays were enabled by the VLIR-UOS' mission to encourage sustainable approaches to urban development capable of tackling global threats such as poverty, migration, and climate change. Travel fund grantees spent a minimum of eight weeks in fieldwork abroad, which allowed them to reside in Tema itself, in close proximity with the communities they were learning from.[6]

Modern living in contested territories

Besides the case of Tema Manhean, comparable research in the broader setting of the global South has been implemented at the Department of Architecture of the KU Leuven under the rubric of 'Modern living in contested territories'.[7] This long-standing line of investigation focuses on the ways in which modernist habitat and the social reformism it promised have been re-shaped by everyday practices and dwellers' appropriations, in the many sites across the Global South where it has been implemented.[8] Within this setting, students' active learning is framed in the context of gaining exposure to conditions of criticality and stimulating a reflection on the positionality of design practice. Recognising the ambiguous role of design-build projects in the African continent, student work is intentionally refrained from culminating in actually built projects or definitive recommendations.[9] Rather, precedence is given to exposure and exchanges with vulnerable urban communities whose tacit knowledge and city-making practices required understanding, documentation and voice. As such, this approach subscribes to the flexible framework developed by Jane Anderson, which expands the boundaries of live-projects beyond the 'live-build' only.[10] The engagement of learners in a nexus of communities' socio-cultural practices is central to this expanded definition. Such an inclusive delineation of the ingredients which make a project 'live' is essential for reflecting on pedagogical experiences that do not have the prime objective of culminating in a physically

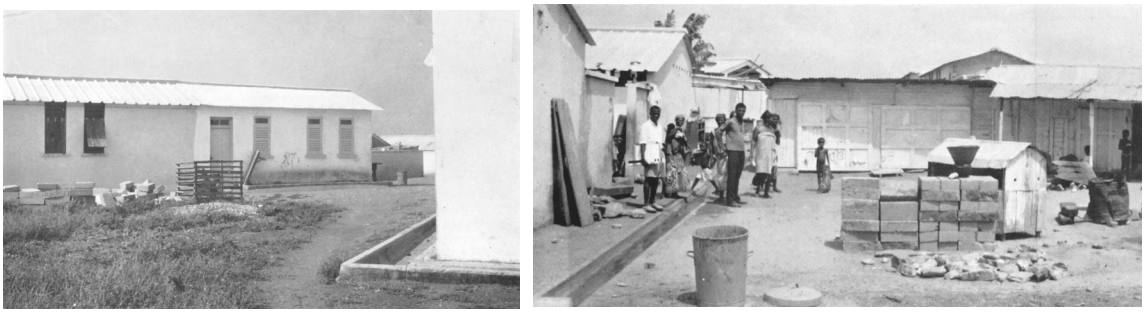

Figure 4: Examples of housing extensions and re-design in Tema Manhean (ca. 1964)

tangible construction but focus instead on the generation of critical thinking while reflecting on the positionality of one's practice.

Pedagogical projects of this nature are also an opportunity to revise the relationship between architectural history and design, transcending the limitations of current viewpoints on modern architecture's post-war diffusion across the urban global South. The KU Leuven initiative was rooted in the desire to complement both historical inquiries on power-knowledge networks that have engendered spatial homogenization by espousing modernist tenets, and the arid functionalism of post-occupancy assessments.[11] Indeed, studies that have favoured a policy-oriented standpoint consider user-based housing transformations as an expression of sustainable development. They acknowledge multi-habitation as an important livelihood strategy in the global South, and adaptations are seen as a way to pragmatically fine-tune housing units to shifting requirements.[12] However, analyses very often glide over the (neo) colonial origin of particular interventions and the implications of proposing particular tenure arrangements in contrast with customary practices.[13]

At the other end, historical and theoretical inquiries that privilege the diffusion of specific (neo-)colonial forms, have questioned the post-colonial re-signification of specific sites. For the latter photography has been a preferred ally, particularly when trying to gauge whether spaces and projects of modernity are truly being decolonised.[14] Frameworks analysing users' engagement with modern African architecture oscillate therefore between the critical photographic narrative and policy-driven post-occupancy assessments. While the former tends to focus on exemplary, self-standing buildings, the latter is haunted by the insufficiencies of low-income housing. What are the implications of referring to these approaches when the modernist gesture in question is a colonial housing project seemingly over-ruled by everyday needs? In a context of criticality as epitomised by Tema Manhean, how may one reconcile modern architecture's post-colonial afterlife with the contested objectives of striving for particular housing standards, safeguarding modernism's promises and triggering an authentic decolonisation? [15]

At the heart of such interrogations lies the question of what critical tools architectural education and practice can offer to explore the re-inhabitation of modernism without losing a critical eye towards its entanglement with colonialism. David Aradeon, in an issue of the *Journal of Architectural Education* over 30 years ago, underlined the built environment's significance as a teaching laboratory only to the extent that architecture students develop a real awareness of it.[16] He emphasized the need for the 'Architect-Teacher' to understand the spatial rather than the formal qualities of use within the urban fabric confronting conflicts, dichotomies and inconsistencies. In spite of a growing acknowledgement of the design disciplines' role in exploring modernism in Africa, it is striking how actual this plea remains. Spatial analyses of extensions, infill buildings and radical re-adjustments, for instance, are still seldom considered instrumental for constructing narratives about practised architecture and accounting for the ways in which inhabitation and 'mattering' have transformed the artefacts in question.[17] As active participants in the place-making process, these relational activities require charting just like multiple livelihoods and social networks do. Urban and architectural spaces, after all, are bound to be re-designed over time through inhabitation. In modern dwelling environments that have been shaped by colonial confrontations and liberation struggles, this inhabitation is all the more essential to record.[18]

The action-learning project acknowledged that documenting these processes of transformation is crucial for sharpening students' gaze towards the unevenness and injustices underlying urban development. Most significantly, it is also an essential tool to make manifest dwellers' claims on space and in society. Inhabitants' re-design of Tema Manhean, for instance, was heavily negotiated at least twice: firstly at its inception by means of stark opposition with the proposal by Fry, Drew, Drake and Lasdun, and secondly throughout its 60 years of existence by means of everyday readjustments. In the early 1950s, Maxwell Fry and partners had laid out a flexible residential unit made of enduring materials along a serpentine garden village plan. This conception was in full contrast with the impermanent 'wattle and daub' houses and unpaved congested alleys of the original village. Whatever the initial number of allocated rooms, households forced to relocate were expected to expand their new houses only within the boundary of the compound enclosure. Like many progressive development projects of the following decades, the majority of self-built extensions in Tema Manhean did not meet the required standards, and was soon considered unauthorised. (*Figure 4*)

Re-design in Tema Manhean began as soon as the first tangible signs of the new village emerged in the late 1950s. It started in the constricted corner of resistance, but gradually moved towards pro-active criticism, giving way, to the radical re-interpretation of what today are still called the 'Nkrumah houses'.[19] Prototype units were demolished and village representatives expressed their utmost disapproval of design decisions. The adaptable arrangement of housing units and communal working areas proposed by the British practice were considered unfitting to the dwelling culture and labour organization of the Ga. The Ga people were the main ethnic group of Ghana's Southern coast, and featured duo-locality and gender-based livelihood management.[20] Resistance and criticism led to a revised blueprint that meant to acknowledge autochthonous settlement patterns and accommodate residential extension and new in-fill. In the final plan, housing types echoed the compound structures of Old Tema, but were made of sandcrete and opened onto large semi-public spaces. This conception may be viewed as a trans-cultural outcome. It implied the safeguard of a type, but imposed upon it a different temporal perspective. Long-lasting materials allowed dwellers to engage with houses differently, though still incrementally.

Learning from re-design

Students' action-learning was centred around at least eight weeks of intensive fieldwork, in most cases including living in Tema Manhean itself, or in its immediate proximity. With Twi and Ga as main languages spoken in the settlement, the students relied on translators and gatekeepers suggested by the tutors or the Tema chief. Prior to their departure to Ghana, participants selected key areas within Tema Manhean to conduct participant observation sessions and semi-structured interviews. Students were expected to document typo-morphological transformations by means of recurrent visits to key residential clusters, and integrate this analysis with ethnographic insight. The focus on changes over time enabled conversation with different generations and extended family members within each compound house. It also helped clarify that the main objective was not to provide a new project or funding to local residents, though expectations were occasionally raised. Contact with local architects and planning officials facilitated participants' understanding of the mismatches between formal planning models and processes of urban transformation in sites where self-building was common practice.

The ambition to apprehend and uncover practices of re-design and spatial appropriations in Tema Manhean rendered necessary the exploration and assemblage of notions considered relevant for both self-built environments and for understanding the dynamics of decolonisation. For students often at their first non-touristic stay abroad, voicing user-based design and re-positioning the idea of architects as sole or prominent makers of an urban environment was a crucial starting point. More specifically, the notion of 'lived-in' architecture was relied upon as a premise to understand how urban dwellers contribute to the production of urban environments in the context of struggle and uncertain urban futures.[21] First coined by Philippe Boudon in his analysis of an early residential project by Le Corbusier, the term places emphasis on the re-signification of artefacts over time, and underlines the performative capacity of modernist space in this regard.[22] Stretching further than a conventional post-occupancy evaluation of resettlement projects, the

Figure 5: Variations on a courtyard: the re-design of family compounds © Luigi Caterino, 2013

analysis of lived-in architecture stresses the dialectical relationship between urban artefacts and user-based transformations, even in a context formerly characterised by forced resettlement.[23] It therefore has the potential to provide awareness on the capacity of self-builders but also on the nature of modernist spaces that may invite users' appropriation. To gain insight on the subject implies that commonly used urban analysis tools need to be questioned. They require reformulation in order to represent the layered histories of contested spaces and acknowledge them when engaging with new spatial imaginations. In the formation of the territorial palimpsest, the layers that need to be unfolded concern mostly displacement, resettlement, neglect and indifference. All require an interpretative representation stretching beyond the most sophisticated GIS mappings. Such understanding becomes demanding for students and urban dwellers alike, albeit for very different reasons. For the former it becomes arduous to venture interpretatively into the context. However instrumental forward-looking cartographies may be for envisioning alternative urban futures, it is much more frequent for students to become overwhelmed by the challenges generated by forced relocation and the rampant inequality visible today. For the latter on the other hand, the well-established intolerance towards what are commonly termed as encroachments and illegal occupation of land poses a serious threat to self-build landscapes, even when these are the outcome of six decades of inhabitation. Being mapped therefore, may culminate in becoming more vulnerable than before to the regulatory frameworks of planning authorities, especially if the documentation material is disseminated. As such, students involved in action-learning become quickly aware of the ambiguous and non-neutral position of charting spatial appropriations that are often recorded as 'informal' or 'illegal' by existing regulatory frameworks.

As part and parcel of student's findings, the documentation of adaptive processes of transformation also helps contradict announcements of the demise of particular vernacular typologies across the African continent. In recent studies, greater Accra has been presented as a metropolitan region where a major economic shift is underway, and where structural adjustment policies; the concentration of economic activities; liberalization; and the mounting flow of global investments have jointly generated the city's rapid demographic and physical growth.[24]

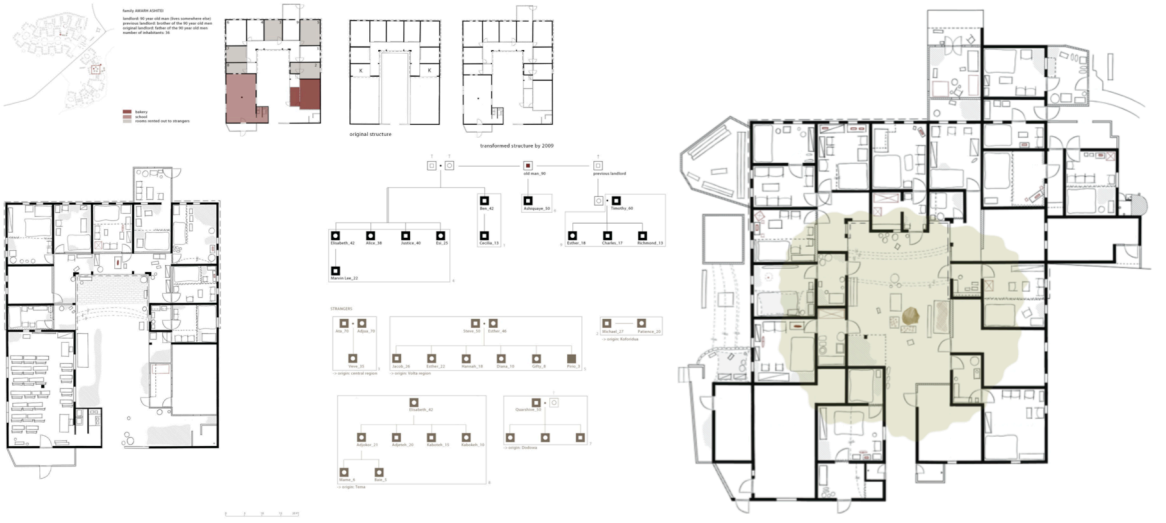

Figure 6: Emblematic expanded compounds (drawing by V. Reats & S. Thijs, 2010)

Such transformation is all but limited to the economic arena, but is also pervasively shifting several dimensions of the social and cultural sphere, including dwelling preferences. In Accra as in many other cities striving to be global, economic globalization and consequent socio-cultural homogenization have encouraged the diffusion of particular residential neighbourhoods and typologies such as gated housing estates and detached villas targeting nuclear families.[25] The discussion of the globalization of residential spaces in Ghana's capital city is exemplary of this process, during which the expiry of the 'traditional' compound family-house in Accra has been taken as definitive.[26]

Composed of rooms around a shared courtyard, compound houses remain the most affordable typology for urban residents in Ghanaian cities today, and feature a variety of rental and ownership arrangements. (*Figure 5*) They are also the context of substantial horizontal extension, and are starting to be raised vertically due to intense densification resulting from family growth and the lack of other affordable housing options for the low-income. By documenting inhabitation and re-design in compound housing and its extensions, students gained insight into the potentials of flexible residential typologies that are indeed the outcome of shifting social relationships and cultural inclinations. Close contact with the everyday city-making of vulnerable urban communities, including the challenges of sharing services and courtyards in a compound house, has enabled students to understand residential space as dynamic and flexible. The provision of room for variable combinations of living and working activities, and the double and triple uses of available space register a de-functionalised approach to one's living headquarters which challenges conventional design norms that students had been exposed to until their experience in Ghana. Through the action-learning students were therefore able to apprehend how the persistence or gradual transformation of a residential type has much to tell about the extent of shared spatial practices within a particular cultural setting.[27] Indeed, in the case of Tema Manhean's housing extensions and new infill, typological tenacity is not only relevant for understanding the social and spatial needs of evolving dwelling cultures, but also to grasp the magnitude of mutual support and reciprocity that keeps many inhabitants out of poverty. Today, in Tema, a visitor can evidently detect both confidence in and erosion of the networks of redistribution and symbolic meaning that the socio-spatial configuration of the compound house entails. Extended family relationships, for instance, oscillate between commonality and a growing individualism partially related to the difficulty of earning one's living. (*Figures 6 and 7*)

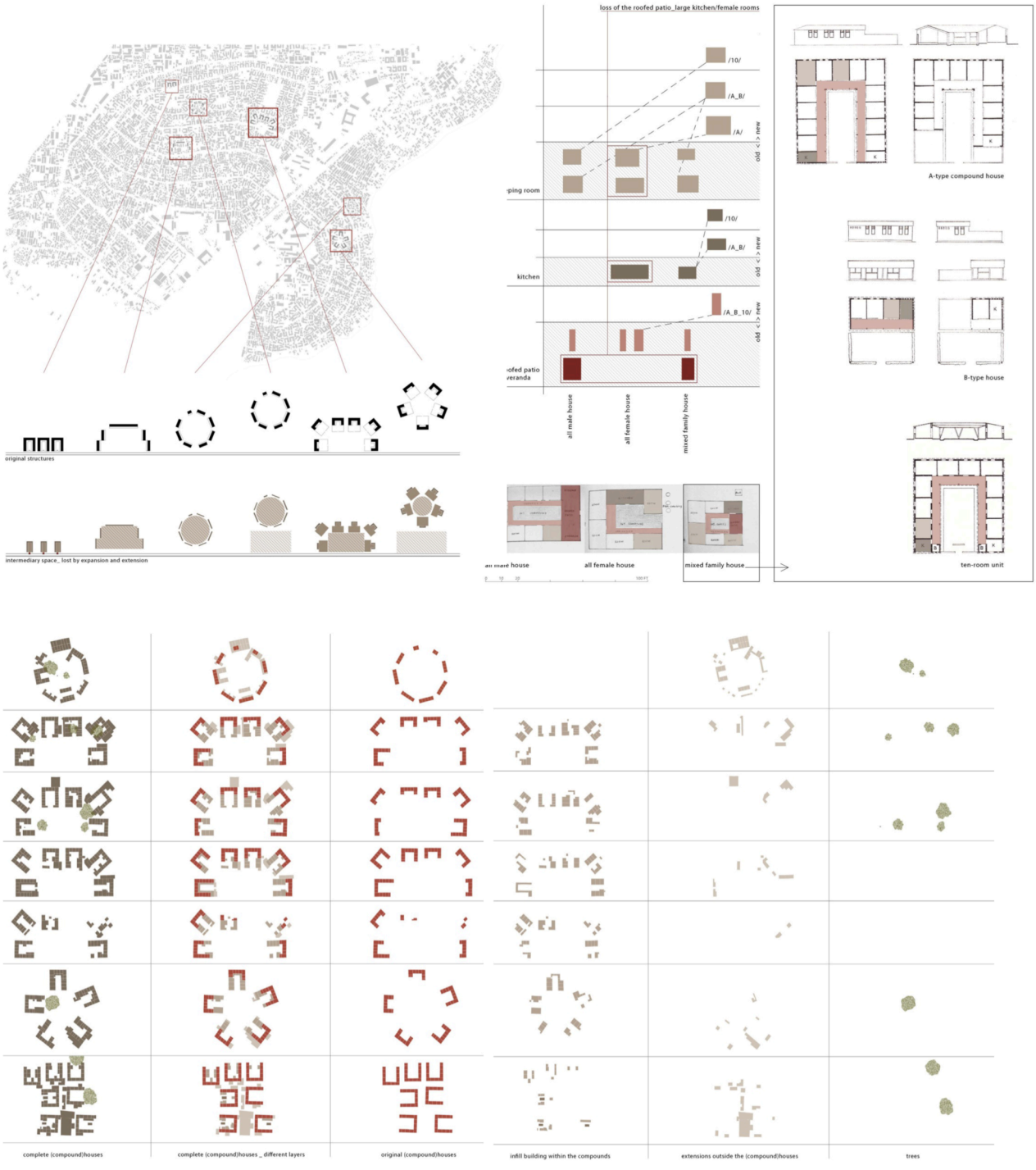

Figure 7: Patterns of extension and densification (drawing by V. Reats & S. Thijs, 2010)

The students' findings also aligned with a recent overview that has emphasized how multi-habitation persists as a housing strategy. For low-income populations in search of affordable accommodation, shared compounds are a resourceful typology.[28] The construction of a multi-dimensional narrative dealing with compound housing trajectories enabled the participants to transcend sectorial visions of residential design. Neither just a question of affordability or of cultural attachment, the actual mapping of how units have evolved sheds light into past and current aspirations. In the six decades after forced relocation, these changes present significant stories of re-interpretation of what features may characterise a model dwelling environment. (*Figure 8*)

By mapping hybridizing compound structures, the pedagogical endeavour has therefore produced ample material to reflect on the material embodiment of tensions between collective living and individualization, and on

Figure 8: Re-design of rooms to accommodate shifting aspirations © Luigi Caterino, 2013

the more general conflicts over open space. Students involved have gained insight into architecture as a culturally laden practice and on the performative capacity of modernist frames. They have also learnt how the documentation of spatial appropriation can be the starting point of a more general acknowledgement of self-build activities as key contributions to city-making in the global South. (*Figure 9*). After their fieldwork and once back in Belgium to complete their final thesis work, participants continued to reflect on the relationship between the designers and users of a particular built artefact. In their final weeks of work, students' learning experience included taking position vis-à-vis the design of particular residential typologies and neighbourhood layouts. Their reflections discussed aspects that could cater to the requirements of urban residents in search for affordability, incrementality and adaptability in a context of deep urban inequality.

Beyond the design of a single compound house, this also meant tackling the relationship between built and open space. Shared compounds provide a diffused, collective and semi-private texture to the urban fabric. By documenting re-design and inhabitation, participants have inevitably distanced themselves from a facile and superficial interpretation of 'African' lifestyles. In Ghana outdoor living, extended family connections and informal livelihoods are in danger of being romanticised and overly celebrated. Much of a compound house's transformation has to do with expectations of privacy and growing individualism. Changing networks of solidarity are partially related to the complex landlord/tenant relationships that rented out rooms in compounds are emblematic of. (*Figure 10*)

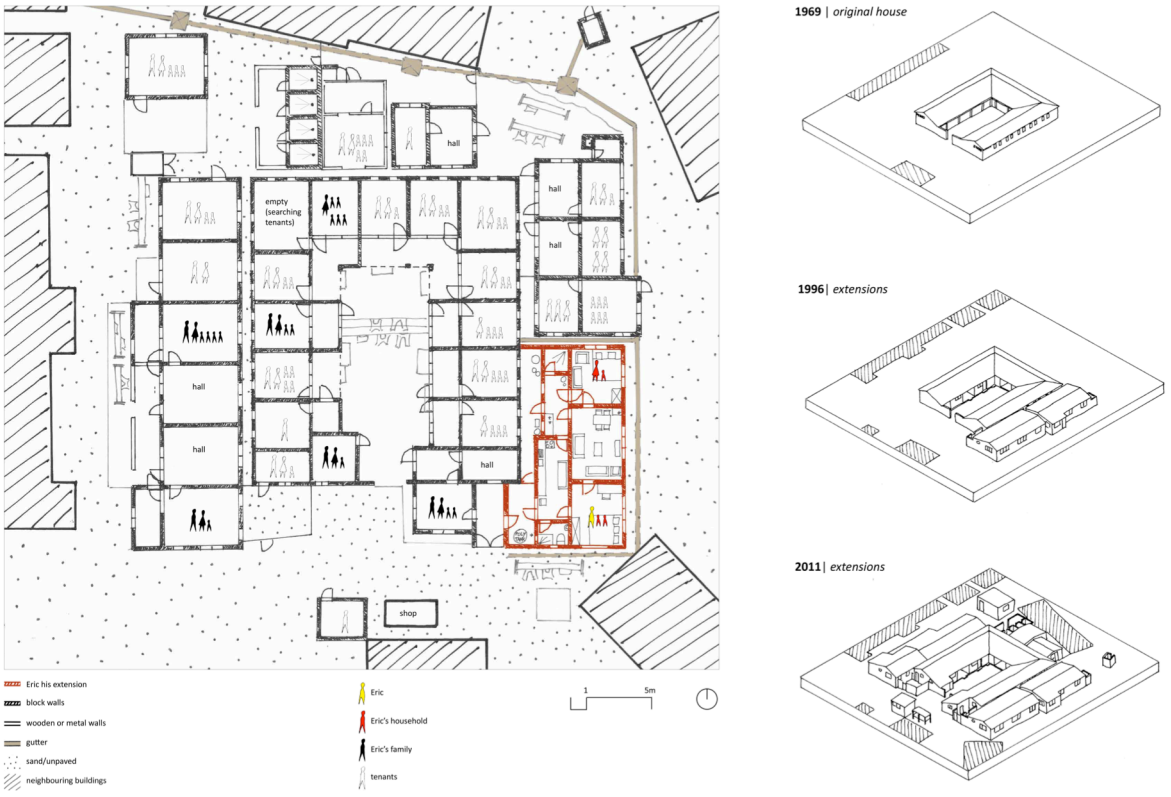

Figure 10: An expanded compound in Ashaiman illustrating the concomitant presence of family members and tenants in the residential unit (drawing by S. Turelinckx, A. Vandenbempt, E. Van Puyvelde, 2014)

As Aradeon underlined over thirty years ago, it is precisely such conflicts of scale, use and space that should inspire the work of architect-teachers, curriculum development and research agendas.[29] In this context, the most significant potential of students' work has been to contribute to an understanding of complex urban dynamics in Greater Accra. The resulting documentation has begun to resource practitioners in a context where professional legitimation for socially engaged designers remains dire. Connections with local architects who advocate for low-cost housing production intensified during the more recent fieldwork sessions (2012-14). In Ghana's capital city, affordable social housing is absent and profoundly dependent on self-building and the re-design of existing structures. A notable exception is the Amui Djor housing intervention located only a few miles north of Tema. This development is sympathetic to the courtyard prototype and illustrates how housing design can be economically viable

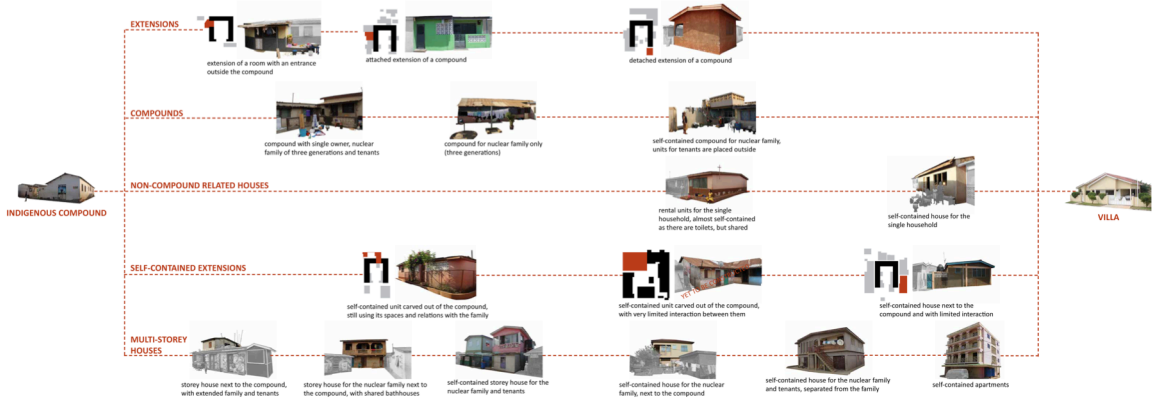

Figure 9: Hybrid typologies between compound house and self-contained villa (drawing by S. Turelinckx, A. Vandenbempt, E. Van Puyvelde, 2014)

while it acknowledges customary social and spatial needs.[30] If in Ghana the architect is indeed 'a cultural intermediary who must reconcile the designs of the professional with the template of tradition, foreign incursions, and the taste and sensibility of the lay client,' this task may be made less challenging when the intersections and juxtapositions of indigenous, colonial and newer global forms are recognized and documented.[31] For students who for the first time engaged with the socio-cultural practices of communities made increasingly vulnerable by rapid urban change, the notion of 'lived-in' architecture has significantly supported their endeavours. The work has been based on a sturdy albeit uneven acknowledgement of *informal* city-making, and the careful documentation of its physical manifestations and socially-driven processes. Its significance resides in the interpretation of user-based built form as the clearest available artefact of local constituencies' socio-spatial requirements. Its outcome, as an in-depth documentation of these necessities, is also a tangible and specific interpretation that a designer can share with colleagues from other disciplines as well as the community itself. More than a design-build experience therefore, taking part in the broader research of 'modern living in contested territories' has stimulated participants' critical thinking and awakened sensitivity vis-à-vis user/ designer relationships and the resourcefulness of re-design practices which require both endorsement and projective interpretation for prompting alternative urban imaginations.

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